Removing paint from a concrete floor using a diamond cup wheel requires a heavy-duty angle grinder, a diamond or PCD cup wheel, a dust shroud system connected to a vacuum, and strict safety gear to protect against dangerous silica dust. YouTube · Inspire Woodc... +3

Required Tools and Safety Gear

- **Angle Grinder:** A robust 4.5-inch or 7-inch grinder.
- **Diamond Cup Wheel:** An 18/20 grit S-segment or polycrystalline diamond (PCD) wheel designed for paint and coating removal.
- **Dust Shroud:** A vacuum-compatible shroud attached to the grinder.
- **HEPA Dust Extractor/Vacuum:** To capture fine concrete and paint dust.
- **Personal Protective Equipment:** A well-fitted respirator mask (P100/N95 minimum), safety glasses, earplugs, and thick gloves. YouTube · Inspire Woodc... +5

Step-by-Step Removal Process

- **Prep the area:** Clear the room completely and seal off doorways with plastic sheeting to keep dust from spreading to other living spaces.
- **Hook up extraction:** Attach the dust shroud to your angle grinder and connect the hose securely to your HEPA shop vacuum. YouTube · Inspire Woodcraft
- **Gear up:** Put on your respirator, safety glasses, and hearing protection before plugging in the tool. YouTube · Inspire Woodc... +1
- **Start grinding:** Turn on the vacuum first, then start the grinder. Keep the diamond cup wheel flat against the floor. YouTube · Inspire Woodcraft
- **Use smooth sweeps:** Move the grinder in slow, overlapping side-to-side or sweeping motions. Do not push down too hard; let the weight of the tool and the fast-spinning diamond segments do the work. BC Paints +1
- **Check for smearing:** If the paint starts to get hot and smear instead of turning into dust, switch to a lower-friction PCD wheel or slow down your pace so the coating chips off rather than melts. YouTube · Josh Jones +1
- **Clear edges and corners:** Carefully edge close to walls, taking care not to slam the side of the spinning cup wheel into the baseboards. YouTube · Inspire Woodcraft

Cleanup and Final Inspection

- **Vacuum thoroughly:** Vacuum the entire slab to pull up any leftover grit and fine powder.
- **Wipe down:** Mop or wipe the concrete clean to ensure no residual film remains.
- **Inspect the surface:** Look for any missed patches or stubborn spots, and do a quick second pass if needed before applying a new sealer or paint. BC Paints